

D3
~~the DTMF command signal from the telephone unit has a predetermined value different from a value of the network DTMF signal;~~

A/X
~~determining whether the DTMF command signal is from the telephone unit, the DTMF command signal is from the telephone unit, the DTMF command signal from the telephone unit indicating one of a plurality of telephone services of the data processing device;~~

concl'd
~~inhibiting transmission of the DTMF command signal from the telephone unit to the telephone network and allowing transmission of the DTMF command signal directly to the data processing device when the DTMF command signal from the telephone unit indicates one of the plurality of telephone services by switching the telephone network between either the telephone unit or the data processing device; and~~

~~starting execution of a telephone service processing of the data processing device for the telephone service indicated by the command signal from the telephone unit when it is determined by the determining that the command signal is from the telephone unit.~~

REMARKS

STATUS OF CLAIMS

Claims 1-6, 8-13 and 15-17 were pending and stood rejected. By this Response, claims 1-2, 8, 10-11 and 15-17 have been amended. Therefore, claims 1-6, 8-13 and 15-17 are now presented for consideration.

ENTRY OF AMENDMENT UNDER 37 C.F.R. § 1.116

Applicants request entry of this Rule 116 Response because the amendments of claims 1-2, 8, 10-11 and 15-17 should not entail any further search by the Examiner since no new features are being added or no new issues are being raised; and the claim amendments do not significantly alter the scope of the claims as previously examined and place the application at least into a better form for purposes of appeal. No new features or new issues are being raised, as the amendment further clarifies the invention. For example the recitation of the "switch" in claims 1 and 10 was previously recited in claim 2, as once amended, and claim 11, as once amended.

The Manual of Patent Examining Procedures sets forth in Section 714.12 that "any amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, Section 714.13 sets forth that "the Proposed Amendment

should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

DRAWING ACKNOWLEDGEMENT

In the Office Action Summary at item 10, no indication was provided as to the acceptability of the Drawings (FIGS. 1-20). Please acknowledge the acceptability of the Drawing in the next Office Action.

REJECTIONS UNDER 35 U.S.C. §103(a)

In the Office Action at page 2, numbered paragraph 1, claims 1-6, 8-13, and 15-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Manning et al. (U.S. Patent No. 5,898,756) in view of Rosen et al. (U.S. Patent No. 5,864,607) and further in view of Bulfer (U.S. Patent No. 6,208,966).

Reconsideration of this rejection is respectfully requested.

Claim 1 recites a communication supported system which at least has the distinguishing features of "a signal transmission inhibition unit including a switch connected between the telephone network and either the telephone unit or the data processing device to switch therebetween and to selectively inhibit transmission of the DTMF command signal from the telephone unit to the telephone network and to allow transmission of the DTMF command signal directly to the data processing device when the DTMF command signal indicates one of the plurality of telephone services." Thus, adequate security of the telephone service of the data processing device is provided. (See present specification at page 10, lines 14-16.)

Manning et al. "is directed to a parallel-connected device that inhibits the transmission of dialing signals over a telephone link. An a.c. load, preferably a series-connected capacitor and resistor, is provided to inhibit transmission by attenuation of the signals." (See Manning et al. at column 2, lines 7-11.) In particular, "[a] switchable a.c. load 200 is selectively connectable across the tip 20 and ring lines 22 of the telephone link 10 to severely attenuate signals sent between the telephones 30, 32 and the central office 5. This operation is provided by a relay SW1 that is under the control of the microprocessor 400. When the relay SW1 is closed by the

microprocessor, a series connected capacitor C1 and resistor R1 provide a low impedance path between tip and ring. Resistor R1 and capacitor C1 are selected such that DTMF signals, for example, generated by telephones 30 or 32 are attenuated to a level at which the central office 5 will not recognize the tones as valid." (See Manning et al. at column 4, lines 21-32.)

However, Manning et al. does not disclose or suggest "... a switch connected between the telephone network and either the telephone unit or the data processing device to switch therebetween and to selectively inhibit transmission of the DTMF command signal from the telephone unit to the telephone network and to allow transmission of the DTMF command signal directly to the data processing device when the DTMF command signal indicates one of the plurality of telephone services" (see claim 1). This is because the Manning et al. parallel-connected device does not include a switch connected between the telephone network and either the telephone unit or the data processing device, as the Manning switch SW1 is not between (i.e., series-connected) and also is not capable of selectively inhibiting transmission of the DTMF command signal from the telephone unit to the telephone network and allowing transmission of the DTMF command signal directly to the data processing device.

Rosen et al. discloses a computer system which communicates "between the PIU-connected telephones 104 and 108 and the computer system 100 ... through radio frequency (RF) communication between the PIUs 106 and 110 and the CIU 102 over the internal telephone network line 130. ... When a PIU-connected telephone is initially picked up, the PIU supplies power to the telephone instead of the phone company 134 and thus prevents the telephone from seizing the telephone network line 130. This effectively isolates the telephone from the external phone line 128, allowing the telephone to communicate with the CIU 102 by RF carrier signals sent over line 130. When the non-PIU telephone 114 is picked up, the CIU 102 turns off its carrier signal to force all telephones to revert to ordinary telephone operation." (See Rosen et al. at column 4, line 58 to column 5, line 6.)

Accordingly, Rosen et al. does not disclose or suggest "a signal transmission inhibition unit including a switch connected between the telephone network and either the telephone unit or the data processing device to switch therebetween and to selectively inhibit transmission of the DTMF command signal from the telephone unit to the telephone network and to allow transmission of the DTMF command signal directly to the data processing device when the DTMF command signal indicates one of the plurality of telephone services" (see claim 1). This is because the Rosen et al. system uses RF carrier signals sent over the network line 130 (see, for example, Fig. 1). Thus, the Rosen et al. telephone network is not switched between either

the telephone unit or the data processing device, as the Rosen et al. system merely uses the existing telephone network line 130 but prevents the telephone from seizing the telephone network line 130.

Bulfer, which is directed to "telecommunications network service for converting spoken words to individual DTMF signals" (see Bulfer at column 2, lines 25-27), does not suggest anything related to the above-mentioned distinguishing features recited in claim 1.

Accordingly, independent claim 1 directed to a communication support system patentably distinguishes over the prior art either taken alone or in combination and should be allowable.

Independent claim 10, directed to a communication control device, which includes "a signal transmission inhibition unit including a switch connected between the telephone network and either the telephone unit or the data processing device to switch therebetween and to selectively inhibit transmission of the DTMF command signal from the telephone unit to the telephone network and allows transmission of the DTMF command signal directly to the data processing device when the DTMF command signal from the telephone unit indicates one of the plurality of telephone services," should also be allowable.

Independent claim 16, directed to a telephone service processing method which includes "inhibiting transmission of the DTMF command signal from the telephone unit to the telephone network and allowing transmission of the command signal directly to the data processing device when the DTMF command signal indicates one of the plurality of telephone services by switching the telephone network between either the telephone unit or the data processing device," should also be allowable.

Independent claim 17, directed to a computer readable medium which includes "inhibiting transmission of the DTMF command signal from the telephone unit to the telephone network and allowing transmission of the DTMF command signal directly to the data processing device when the DTMF command signal from the telephone unit indicates one of the plurality of telephone services by switching the telephone network between either the telephone unit or the data processing device," should also be allowable.

Claims 2-6, 8-9, 11-13 and 15, which depend directly or indirectly from claims 1 and 10, should also be allowable for at least the same reasons as claims 1 and 10 from which they depend, as well as for the additional features recited therein. Reconsideration is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please AMEND the following claims:

1. (THREE TIMES AMENDED) A communication support system which is adapted to connect a telephone unit through a communication control device to a data processing device and adapted to connect a telephone network to the communication control device, the communication support system comprising:

a command signal recognition unit either detecting a Dual Tone MultiFrequency (DTMF) command signal sent from the telephone unit or a network DTMF command signal sent from the telephone network, and determining, when the DTMF command signal is from the telephone unit, which one of a plurality of telephone services of the data processing device the DTMF command signal from the telephone unit indicates, wherein the command signal recognition unit includes a DTMF detection unit that detects the network DTMF signal sent from the telephone network, the DTMF command signal from the telephone unit having a predetermined value different from a value of the network DTMF signal;

a signal transmission inhibition unit including a switch connected between the telephone network and either the telephone unit or the data processing device to switch therebetween and to [that] selectively [inhibits] inhibit transmission of the DTMF command signal from the telephone unit to the telephone network and allows transmission of the DTMF command signal directly to the data processing device when the DTMF command signal indicates one of the plurality of telephone services; and

a telephone service processing unit that performs a telephone service processing of the data processing device for the telephone service indicated by the DTMF command signal from the telephone unit, the telephone service processing unit starting execution of the telephone service processing when the command signal recognition unit determines that the DTMF command signal is from the telephone unit.

2. (TWICE AMENDED) The communication support system according to claim 1, wherein the signal transmission inhibition unit comprises:

a first converter unit that separates a data signal sent from the telephone network into a dual-tone multiple frequency signal and a voice signal;

a second converter unit that separates a data signal sent by the telephone unit into a dual-tone multiple frequency signal and a voice signal; and

[a] the switch, provided on a connection line of the first converter unit and the second converter unit that switches on or off the connection line to selectively provide one of connection of the telephone unit and the telephone network through the switch and disconnection of the telephone network from the telephone unit.

3. (AS UNAMENDED) The communication support system according to claim 1, wherein the command signal recognition unit detects a dual-tone multiple frequency DTMF signal sent by the telephone unit, the command signal recognition unit determining that the command signal is from the telephone unit when said DTMF signal indicates one of a plurality of defined values allocated to the plurality of telephone services.

4. (AS UNAMENDED) The communication support system according to claim 3, wherein the command signal recognition unit detects a dual-tone multiple frequency DTMF signal sent from the telephone network, the command signal recognition unit distinguishing between the DTMF signal from the telephone network and the DTMF signal from the telephone unit.

5. (AS UNAMENDED) The communication support system according to claim 3, wherein the telephone service processing unit performs a telephone service processing of the data processing device for the telephone service indicated by the DTMF signal from the telephone unit.

6. (AS ONCE AMENDED) The communication support system according to claim 1, wherein the communication control device comprises a line switching unit that selectively provides one of connection of the telephone unit and the telephone network through the line switching unit and disconnection of the telephone network from the telephone unit.

8. (TWICE AMENDED) The communication support system according to claim [7]1, wherein the communication control device comprises a DTMF generator unit that generates a dual-tone multiple frequency DTMF signal based on the DTMF signal sent by the telephone unit, the DTMF generator unit transmitting the DTMF signal from the communication control device to the telephone network before the transmission of a signal from the telephone unit to the telephone network is inhibited by the signal transmission inhibition unit.

9. (AS UNAMENDED) The communication support system according to claim 1, wherein the telephone service processing unit performs one of a voice recording processing, a voice playback processing, a file transmission processing and a telephone number entry processing based on the telephone service indicated by the command signal from the command signal recognition unit.

10. (THREE TIMES AMENDED) A communication control device adapted to connect a telephone unit and a data processing device through the communication control device and adapted to connect a telephone network to the communication control device, comprising:

a line switching unit alternately providing either connection of the telephone unit and the telephone network through the line switching unit or disconnection of the telephone network from the telephone unit;

a command signal recognition unit that detects either a Dual Tone Multi-Frequency (DTMF) command signal sent from the telephone unit or a network DTMF command signal sent from the telephone network, and determines whether the DTMF command signal is from the telephone unit, when the DTMF command signal from the telephone unit indicates one of a plurality of telephone services of the data processing device, wherein the command signal recognition unit includes a DTMF detection unit that detects the network DTMF signal sent from the telephone network, the DTMF command signal from the telephone unit having a predetermined value different from a value of the network DTMF signal; and

a signal transmission inhibition unit including a switch connected between the telephone network and either the telephone unit or the data processing device to switch therebetween and to [that] selectively [inhibits] inhibit transmission of the DTMF command signal from the telephone unit to the telephone network and allows transmission of the DTMF command signal directly to the data processing device when the DTMF command signal from the telephone unit indicates one of the plurality of telephone services.

11. (TWICE AMENDED) The communication control device according to claim 10, wherein the signal transmission inhibition unit comprises:

a first converter unit that separates a data signal sent from the telephone network into a dual-tone multiple frequency signal and a voice signal;

a second converter unit that separates a data signal sent by the telephone unit into a dual-tone multiple frequency signal and a voice signal; and

[a] the switch provided on a connection line of the first converter unit and the second converter unit that switches on or off the connection line to selectively provide one of connection of the telephone unit and the telephone network through the switch and disconnection of the telephone network from the telephone unit.

12. (AS UNAMENDED) The communication control device according to claim 10, wherein the command signal recognition unit detects a dual-tone multiple frequency DTMF signal sent by the telephone unit, the command signal recognition unit determining that the command signal from the telephone unit is detected when said DTMF signal indicates one of a plurality of defined values allocated to the plurality of telephone services.

13. (AS UNAMENDED) The communication control device according to claim 12, wherein the command signal recognition unit detects a dual-tone multiple frequency DTMF signal sent from the telephone network, the command signal recognition unit distinguishing between the DTMF signal from the telephone network and the DTMF signal from the telephone unit.

15. (TWICE AMENDED) The communication control device according to claim [14] 10, further comprising a DTMF generator unit that generates a dual-tone multiple frequency DTMF signal based on the DTMF signal sent by the telephone unit, the DTMF generator unit transmitting the DTMF signal to the telephone network before the transmission of a signal from the telephone unit to the telephone network is inhibited by the signal transmission inhibition unit.

16. (THREE TIMES AMENDED) A telephone service processing method in a communication support system which is adapted to connect a telephone unit through a communication control device to a data processing device and adapted to connect a telephone network to the communication control device, the method comprising [the steps of]:

either detecting a Dual Tone Multi-Frequency (DTMF) command signal sent by the telephone unit or a network DTMF command signal sent from the telephone network, wherein the DTMF command signal from the telephone unit has a predetermined value different from a value of the network DTMF signal;

detecting, when the DTMF command signal is from the telephone unit, the DTMF command signal indicating one of a plurality of telephone services of the data processing device;

inhibiting transmission of the DTMF command signal from the telephone unit to the telephone network and allowing transmission of the command signal directly to the data processing device when the DTMF command signal indicates one of the plurality of telephone services by switching the telephone network between either the telephone unit or the data processing device; and

starting execution of a telephone service processing using the data processing device for the telephone service indicated by the command signal from the telephone unit when it is determined in said determining step that the command signal is from the telephone unit.

17. (THREE TIMES AMENDED) A computer readable medium storing program code causing a processor to perform a method executing a telephone service in a communication support system which is adapted to connect a telephone unit through a communication control device to a data processing device and adapted to connect a telephone network to the communication control device, said method comprising:

detecting either a Dual Tone Multi-Frequency (DTMF) command signal sent by the telephone unit or a network DTMF command signal sent from the telephone network, wherein the DTMF command signal from the telephone unit has a predetermined value different from a value of the network DTMF signal;

determining whether the DTMF command signal is from the telephone unit, the DTMF command signal is from the telephone unit, the DTMF command signal from the telephone unit indicating one of a plurality of telephone services of the data processing device;

inhibiting transmission of the DTMF command signal from the telephone unit to the telephone network and allowing transmission of the DTMF command signal directly to the data processing device when the DTMF command signal from the telephone unit indicates one of the plurality of telephone services by switching the telephone network between either the telephone unit or the data processing device; and

starting execution of a telephone service processing of the data processing device for the telephone service indicated by the command signal from the telephone unit when it is determined by the determining that the command signal is from the telephone unit.